CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.04/KRIDL/CEMENT/2014-15 Date: 17.07.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	:	Construction of Library Building at Yelahanka New Town of Ward No.04 in Yelahanka New Town Sub Division, BBMP, Bangalore.
REFERENCE	:	BBMP/AEE/YNSD/517/2014-15 Dated: 14.07.2014
SAMPLE ID	:	Cement
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	a) Initial Setting Time	IS-4031 (Part -5)	145 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	480 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	27.50 %	-

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Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.04/KRIDL/SAND/2014-15 : 17.07.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Construction of Library Building at Yelahanka New Town of Ward No.04 in Yelahanka New Town Sub Division, BBMP, Bangalore.

Reference : BBMP/AEE/YNSD/517/2014-15 Dated: 14.07.2014

Date of Testing : 17.07.2014

Material : Sand 5.9.14 Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	105	5.25	5.25	94.8	90-100
2.36	223	11.15	16.40	83.6	75-100
1.18	516	25.80	42.20	57.8	55-90
600 Micron	415	20.75	62.95	37.1	35-59
300 Micron	496	24.80	87.75	12.3	8-30
150 Micron	202	10.10	97.85	2.2	0-10

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Job No.: CTCE/BBMP/W.No.04/KRIDL/AGG/2014-15 : 17.07.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Construction of Library Building at Yelahanka New Town of Ward No.04 in Yelahanka New Town Sub Division, BBMP, Bangalore.

Reference : BBMP/AEE/YNSD/517/2014-15 Dated: 14.07.2014

Date of Testing : 17.07.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25500**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	990	3.88	3.88	96.12	95-100
20	15645	61.35	65.24	34.76	30-70
10	5830	22.86	88.10	11.90	10-35
4.75	2685	10.53	98.63	1.37	0-5

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TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Construction of Library Building at Yelahanka New Town of Ward No.04 in Yelahanka New Town Sub Division, BBMP, Bangalore.

Reference : BBMP/AEE/YNSD/517/2014-15 Dated: 14.07.2014

Date of Testing : 17.07.2014 5.9.14

Material : 20mm Aggregates

Total Wt. of Aggregates in gms= **5000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
40	0	0	0	100	100
20	188	3.8	3.8	96.2	95-100
10	3215	64.3	68.1	31.9	25-55
4.75	1462	29.2	97.3	2.7	0-10

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Job No.: CTCE/BBMP/W.No.04/KRIDL/STEEL/2014-15 24.07.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the Work	:	Construction of Library Building at Yelahanka New Town of Ward No.04 in Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	:	BBMP/AEE/YNSD/517/2014-15 Dated: 14.07.2014
Date of Test	:	24.07.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	8	0.40	510	552	13.10	O.K	O.K

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Job No.: CTCE/BBMP/W.No.04/KRIDL/STEEL/2014-15 24.07.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
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Date of Test	:	24.07.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	10	0.62	513	556	13.25	O.K	O.K

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Job No.: CTCE/BBMP/W.No.04/KRIDL/STEEL/2014-15 24.07.2014

TEST REPORT ON REINFORCEMENT STEEL

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Date of Test	:	24.07.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	12	0.89	515	558	13.50	O.K	O.K

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Job No.: CTCE/BBMP/W.No.04/KRIDL/STEEL/2014-15 24.07.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
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Reference	:	BBMP/AEE/YNSD/517/2014-15 Dated: 14.07.2014
Date of Test	:	24.07.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	16	1.58	520	563	13.65	O.K	O.K

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Job No.: CTCE/BBMP/W.No.04/KRIDL/STEEL/2014-15 24.07.2014

TEST REPORT ON REINFORCEMENT STEEL

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Reference	:	BBMP/AEE/YNSD/517/2014-15 Dated: 14.07.2014
Date of Test	:	24.07.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	20	2.47	525	569	13.80	O.K	O.K

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Job No.: CTCE/BBMP/W.No.04/KRIDL/STEEL/2014-15 24.07.2014

TEST REPORT ON REINFORCEMENT STEEL

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Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
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Reference	:	BBMP/AEE/YNSD/517/2014-15 Dated: 14.07.2014
Date of Test	:	24.07.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	25	3.85	528	572	13.95	O.K	O.K

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E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.04/KRIDL/CC Blocks/2014-15 18.08.2014

TEST REPORT ON CEMENT CONCRETE BLOCKS

Client : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of the Work : Construction of Library Building at Yelahanka New Town of Ward No.04 in Yelahanka New Town Sub Division, BBMP, Bangalore.

Refernce : BBMP/AEE/YNSD/517/2014-15 Dated: 14.07.2014

Size of Block : 400 mm x 200 mm x 200 mm

Cross Sectional Area : 80000 mm^2

Technical Reference : IS: 2185 (Part 1) - 2005

No. of Blocks Tested : 03

Sl.No.	Date of Sampling	Date of testing	Failure load (KN)	Compressive strength	Minimum Compressive Strength of Individual Units
			kN	N/mm^2	N/mm^2
1	16.08.2014	18.08.2014	261.3	3.27	3.2
2	16.08.2014	18.08.2014	259.4	3.24	
3	16.08.2014	18.08.2014	258.8	3.24	

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CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.04/KRIDL/CUBE/2013-14 08.09.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager (West),** KRIDL, Bangalore.
Name of the work	: Construction of Library Building at Yelahanka New Town of Ward No.04 in Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/YNSD/517/2014-15 Dated: 14.07.2014
Sample ID	: RCC Column Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	11.08.2014	08.09.2014	8.148	489.4	21.75
2	11.08.2014	08.09.2014	8.269	496.8	22.08
3	11.08.2014	08.09.2014	8.375	507.2	22.54

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NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.04/KRIDL/CUBE/2013-14 22.10.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager (West),** KRIDL, Bangalore.
Name of the work	: Construction of Library Building at Yelahanka New Town of Ward No.04 in Yelahanka New Town Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/YNSD/517/2014-15 Dated: 14.07.2014
Sample ID	: RCC Roof Slab Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.09.2014	22.10.2014	8.348	505.9	22.48
2	24.09.2014	22.10.2014	8.276	496.5	22.07
3	24.09.2014	22.10.2014	8.452	519.7	23.10

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